

January 17, 2003

Mr. Scott Stoner  
DaimlerChrysler Corporation - Indianapolis Foundry  
1100 South Tibbs Avenue  
Indianapolis, IN 46241-2797

Re: Exempt Construction and Operation Status,  
**CP 097-16879-00012**

Dear Mr. Stoner:

The application from DaimlerChrysler Corporation - Indianapolis, IN 46241-2797, received on December 6, 2002, has been reviewed. Based on the data submitted and the provisions in Sections 1 and 2 of 326 IAC 2-1, it has been determined that the following tray dump operation, to be located at 1100 South Tibbs Avenue, Indianapolis, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) tray dump operation, with a maximum capacity of twenty (20) tons of sand per hour, using a sliding design, baffles to minimize the height of the drop, and shrouding of the tray to control fugitive particulate matter.

The following conditions shall be applicable:

1. 326 IAC 5-1-2 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
  - (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
2. 326 IAC 6-1 (Particulate Emission Limitations for Nonattainment Areas)  
Pursuant to 326 IAC 6-1-2, particulate matter emissions from the tray dump shall be limited to particulate matter emissions of no greater than seven-hundredths (0.07) g/dscm (three-hundredths (0.03) grain/dscf).

This existing source has submitted their Part 70 application T-097-6485-00012 on August 29, 1996. The equipment being reviewed under this exemption shall be incorporated in the submitted Part 70 application.

Any change or modification which may increase the potential PM10 emissions to 5 tons per year or more from the equipment covered in this exemption must be approved by the Environmental Resources Management Division (ERMD) before such change may occur.

Sincerely,

Original Signed by John Chavez  
John Chavez  
Administrator  
Office of Environmental Services

HMS

cc: Holly Stockrahm, Permits  
Jeff Hege, Compliance Inspector  
File - DaimlerChrysler Corporation-Indianapolis Foundry

**Indianapolis Environmental Resources Management Division  
Air Quality Management Section**

and

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for Exemption**

**Source Background and Description**

Source Name:	DaimlerChrysler Corporation - Indianapolis Foundry
Source Location:	1100 South Tibbs Avenue, Indianapolis, IN 46241-2797
County:	Marion
Exemption No.:	E097-16879 -00012
SIC Code:	3841
Permit Reviewer:	Holly M. Stockrahm

The Office of Environmental Services (OES) has reviewed an application from DaimlerChrysler Corporation - Indianapolis Foundry relating to the construction and operation one (1) tray dump operation delivering sand to the shaker units identified as 44D. The construction is described as follows:

- (a) One (1) tray dump operation, with a maximum capacity of twenty (20) tons of sand per hour, using a sliding tray design, baffles to minimize the height of the drop, and shrouding of the tray to control fugitive particulate matter, with PM emissions controlled by two (2) baghouses (for the shaker units), identified as CE-7 and CE-8, exhausting to stacks S-7 and S-8.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (inches)	Flow Rate (acfm)	Temperature (°F)
S-7 (CE-7)	Shaker units, 401 Shakeout	80	64	120,000	120
S-8 (CE-8)	3 Shaker units	80	40	60,000	120

**Recommendation**

The staff recommends to the Administrator that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 6, 2002, with additional information received on August 26, 1996.

**Emissions Calculations**

The emissions from the tray dump are calculated based on Section 13.2.4.3 of AP 42, which contains the following equation for predicting particulate matter emissions from drop operations:

$$E = \frac{0.0032 K(U/5)^{1.3}}{(M/2)^{1.4}}$$

where E = pounds PM per ton of material

K = particle size multiplier (used 0.74 for particles less than 30 micron)

U = mean wind speed, mph (used 1.0 mph, since the operation is enclosed)

M = moisture content (used 0.5% which is a conservative estimate)

Using these values, an emission factor of 0.00203 lb/tons of sand is derived. The PTE of the dump tray is as follows:

20 tons of sand/hr \* 0.00203 lb PM/ton of sand = 0.0407 pounds of PM/hr

0.0407 lb/hr \* 8760 hr/year \* ton/2000 lb = 0.18 tons/year

### Total Potential Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	0.2	0.2
Particulate Matter (PM10)	0.2	0.2

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of the pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

### County Attainment Status

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Marion County has been classified as attainment or unclassifiable for PM10, SO2, NOx and CO. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	greater than 100
PM10	greater than 100
SO <sub>2</sub>	greater than 100
VOC	greater than 100
CO	greater than 100
NO <sub>x</sub>	greater than 100

- (a) This existing source is a major stationary source because it is in one of the 28 listed source categories and at least one regulated pollutant is emitted at a rate of 100 tons per year or more.
- (b) These emissions were based on the Part 70 application submitted by the company.

#### Part 70 Permit Determination

##### 326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T-097-6485-00012) application on August 26, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

#### Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) or National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63) applicable to this facility.

#### State Rule Applicability

##### 326 IAC 5-1-2

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

##### 326 IAC 6-1 (Particulate Emission Limitations for Nonattainment Areas)

The source has a PM potential to emit greater than one hundred (100) tons per year, therefore, 326 IAC 6-1-2 applies. Pursuant to 326 IAC 6-1-2, particulate matter emissions from the tray dump shall be limited to particulate matter emissions of no greater than seven-hundredths (0.07) g/dscm (three-hundredths (0.03) grain/dscf).

##### 326 IAC 6-3-2 and 40 CFR 52, Subpart P (Particulate and Particulate Matter (PM) Emissions)

These rules apply only if no other 326 IAC 6 rule applies. 326 IAC 6-1-2 applies, therefore, 326 IAC 6-3 does not apply.

## **Conclusion**

The construction of this tray dump will be subject to the conditions of the attached proposed **Exemption No. 097-16879-00012.**